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Autonomous Indoor Localization for Fire Safety and Resource Location via Field Mapping Techniques (Android Version)

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Autonomous Indoor Localization for Fire Safety and Resource Location via Field Mapping Techniques-DURI Project 2014 Spring

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An overall result of this collaboration between the Mechanical Engineering Dept. and the Purdue University Libraries (PUL) should result in building a big data framework that make have knowledge transfer for similar large scale geospatial data implementations. Such may promote best practices of data management where the library skill sets may aid faculty research and student learning. Here, the PUL is concerned with advancing the Mechanical Engineering's STEM pipeline capacity with this type of research, collaboration and data management engagement.

• Data would be collected from Android cell phone via applications

Setting up the GUI

- Under 'Home' click 'New' button
- Select' Graphical User Interface'
- Open existing GUI tab and search for GUI file

- Functions of GUI
- Plot Acceleration
- Detect Stride
- Estimate Position intervals

Note: Personal data files can be loaded into the GUI for analysis.

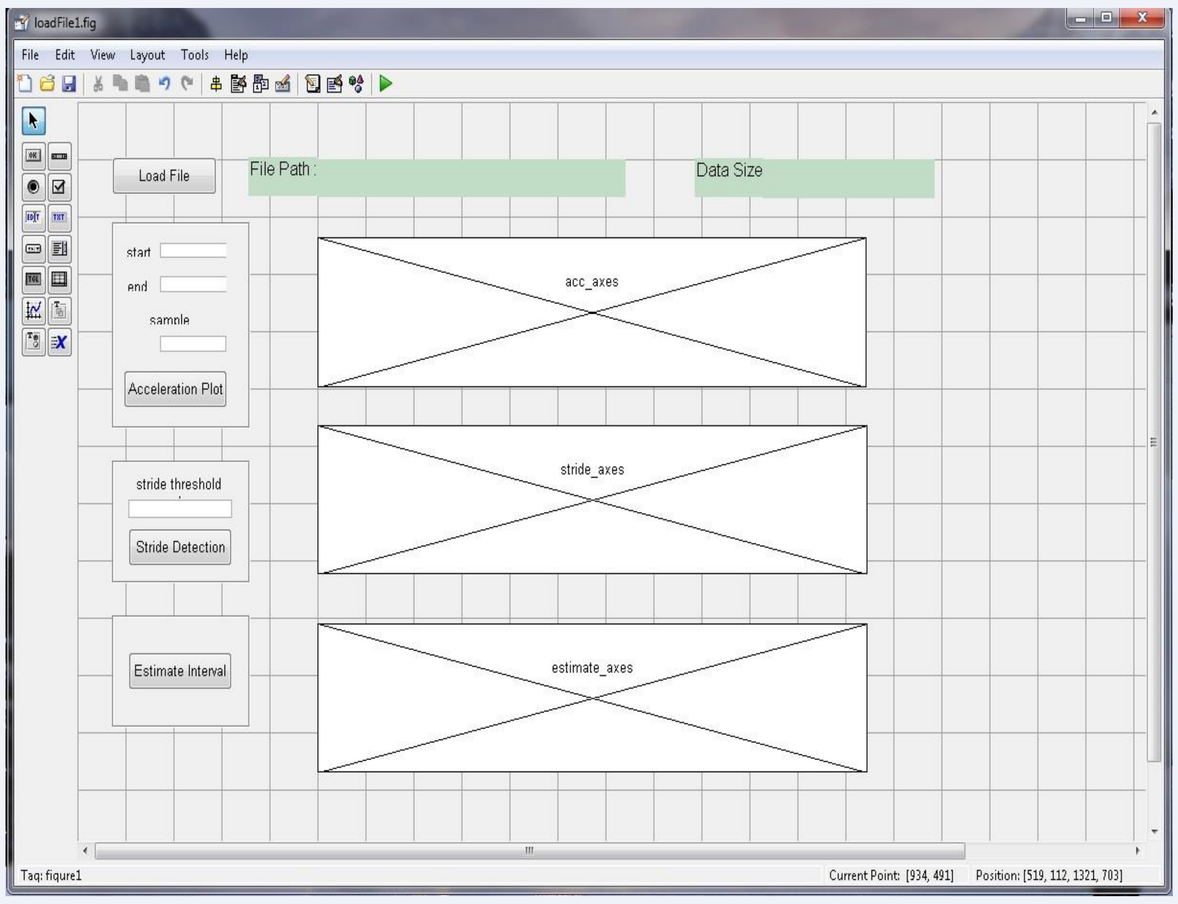
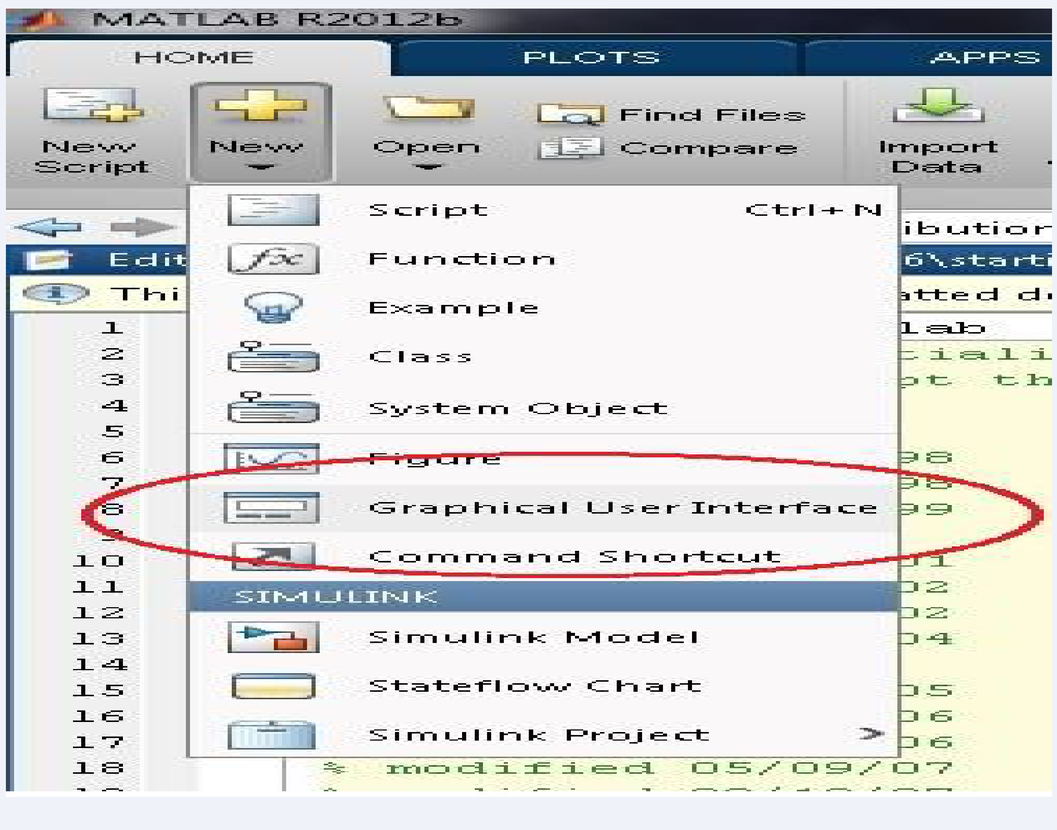


Figure1: Front panel of GUI where data input will be done

Project Status

Our application for this work may further patent develop towards building fire and safety issues. Our goal is to run some field testing in the Potter Engineering Library in the near future. Our result should create a magnet map of the library using a set of research participants.

This poster gives an insight to a GUI application, which would be used to load data from a cell phone for the purpose of analysis of acceleration, stride detection and to estimate position intervals



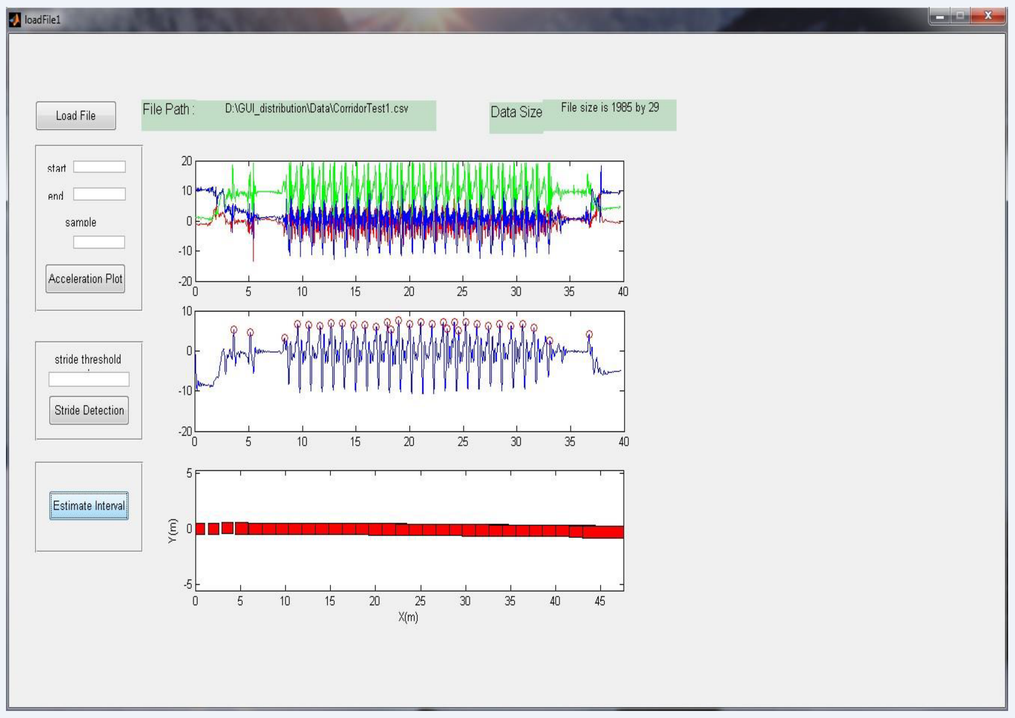


Figure2: A running GUI

PURDUE UNIVERSITY LIBRARIES